



DEPARTMENT OF
PLANT AND SOIL SCIENCES



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Participating Seed Companies

Americot/NexGen

Deltapine

FiberMax/Stoneville

PhytoGen Cottonseed

2021 Season Overview

The majority of Oklahoma's cotton acreage experienced cooler and wetter planting conditions from early May through the end of the dryland planting window in mid-June. While the moisture was favorable for emergence, it did result in delays in early season growth. This caused additional thrips control measures to be employed in many areas, particularly on fields planted to cotton with only a base (fungicide only) seed treatment. The delayed growth also set the stage for maturity concerns throughout the summer. Most areas of western Oklahoma were behind on accumulated heat units from May through August. This, combined with many areas also receiving above-average rainfall during 2 or 3 of these months, delayed early season growth, fueled excessive vegetative growth, and delayed the onset of the flowering period. This setback in development was evident when checking the node of the first fruiting branch. Generally, we observed that the first fruiting branch was one to two nodes higher, regardless of variety and location, compared to these same values recorded on the same varieties and locations in previous years. The overall delay in maturity was still present as August came to an end, typically a period when the earliest set bolls are beginning to crack, and some natural leaf aging is visibly evident. However, in 2021 the crop entered September with lush green foliage and minimal open bolls, if any, throughout much of the state.

September brought a much-needed change in weather compared to the conditions that persisted throughout the late spring and summer. This was the first month of the season that resulted in above average heat unit accumulation, with areas of western Oklahoma picking up 80 – 100 more heat units than average. A reduction of rainfall also occurred, with most of western Oklahoma getting less than an inch for the month. These warm and dry conditions were perfect for a crop that needed to catch up, and in many areas harvest aid applications began by the third week in September. While there were still areas of the state that had immature cotton going well into October, generally speaking, the conditions the crop experienced in September were ideal. Harvest began on a large scale in early October. Once it started there were very few delays due to weather, with the crop yielding average to above average with mostly favorable fiber quality. Given the slow growth and maturity concerns that plagued the crop from planting through most of the summer, this was a welcome performance, particularly in a year with such strong prices.

A total of 21 commercial varieties from four seed companies were evaluated across seven locations in the 2021 Trials (Table 1). There were a multitude of insect and herbicide traits represented within these varieties, including both two and three gene Bt and all three of the commercially available three gene herbicide traits (Table 2). Seasonal temperature patterns from the southwest and west central regions are illustrated by the monthly heat unit accumulation for 2021 compared to the 13-year average for Altus (Fig. 1) and Weatherford (Fig. 2). Variety performance compared to the trial average (yield deviation) of entries that were included in at least four locations is presented in Table 3. Performance of varieties entered in all southwestern dryland and irrigated trials pooled across locations is presented in Table 4. Since there are variations in variety entries across the various regions of our state, these tables provide a hint of variety performance stability for areas un-represented by our current RACE trial locations. Results from individual locations begin on Table 5. There are two results tables for the irrigated Jackson County trial, one showing all entries and one with an analysis of just the varieties containing the XtendFlex® trait.

Table 1. Seed company participants and variety abbreviations for entries in 2021 Oklahoma RACE Trials.

Seed Company	Variety Entries	Abbreviation
Deltapine®	1948 B3XF	DP 1948 B3XF
	2012 B3XF	DP 2012 B3XF
	2020 B3XF	DP 2020 B3XF
	2022 XF	DP 2022 XF
	2038 B3XF	DP 2038 B3XF
	2055 B3XF	DP 2055 B3XF
	2123 B3XF	DP 2123 B3XF
FiberMax®	2398 GLTP	FM 2398 GLTP
NexGen®	4050 XF	NG 4050 XF
	4098 B3XF	NG 4098 B3XF
	4190 B3XF	NG 4190 B3XF
	4936 B3XF	NG 4936 B3XF
	5150 B3XF	NG 5150 B3XF
PhytoGen®	332 W3FE	PHY 332 W3FE
	350 W3FE	PHY 350 W3FE
	400 W3FE	PHY 400 W3FE
	443 W3FE	PHY 443 W3FE
	480 W3FE	PHY 480 W3FE
Stoneville®	4990 B3XF	ST 4990 B3XF
	4993 B3XF	ST 4993 B3XF
	5600 B2XF	ST 5600 B2XF

Table 2. Insect and herbicide trait glossary for 2021 Oklahoma RACE Trial entries.

Insect Trait	Abbreviation	Bt Proteins
Bollgard 3®	B3	Cry1Ac + Cry2Ab + Vip3A
TwinLink Plus®	TP	Cry1Ab + Cry2Ae + Vip3Aa19
Widestrike 3®	W3	Cry1Ac + Cry1F + Vip3A
Herbicide Trait	Abbreviation	Herbicide Tolerances
FlexEnlist®	FE	Glyphosate + Glufosinate + 2,4-D
GlyTol LibertyLink®	GL	Glyphosate + Glufosinate
XtendFlex®	XF	Glyphosate + Glufosinate + Dicamba

Altus, OK Monthly Heat Unit Accumulation

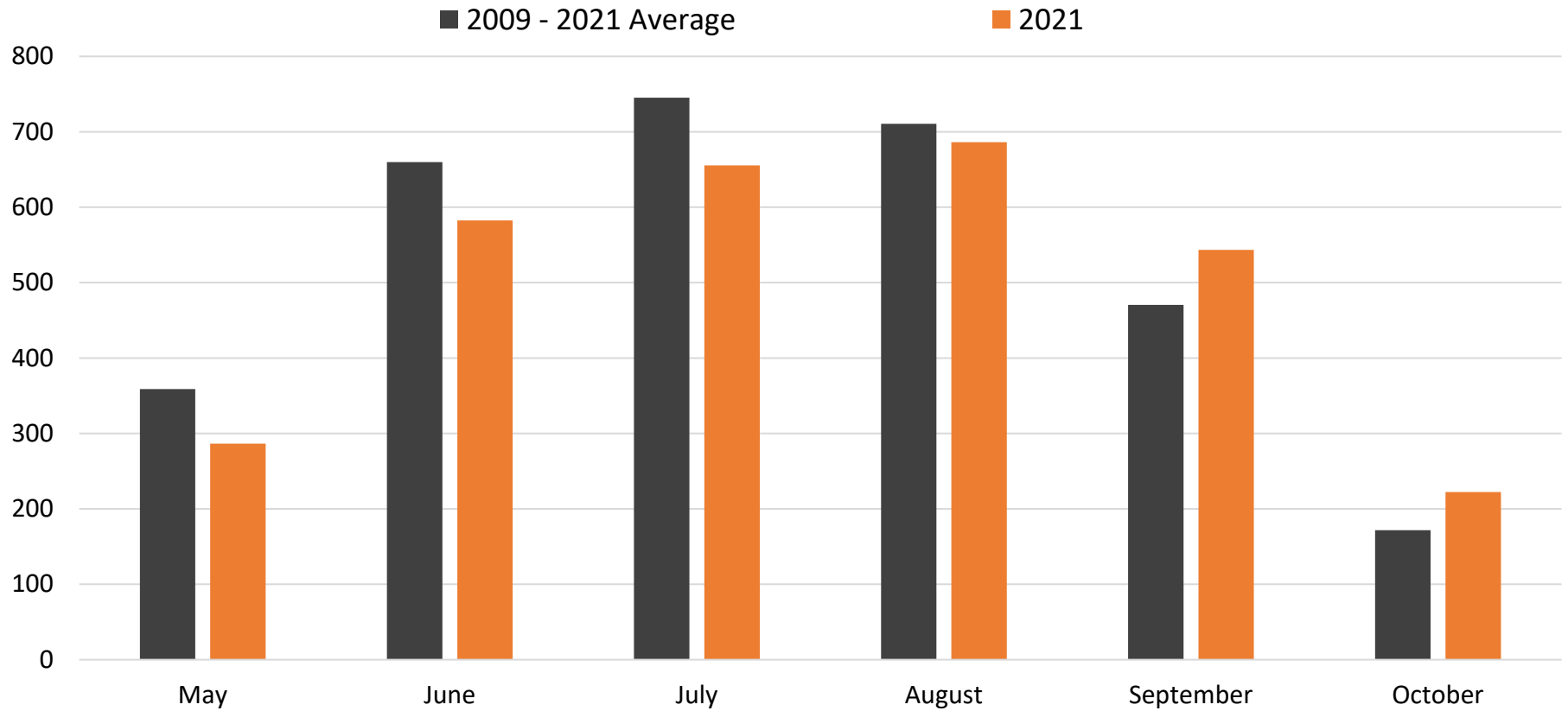


Figure 1. Monthly heat unit accumulation (DD60s) from the Altus, OK Mesonet station.

Weatherford, OK Monthly Heat Unit Accumulation

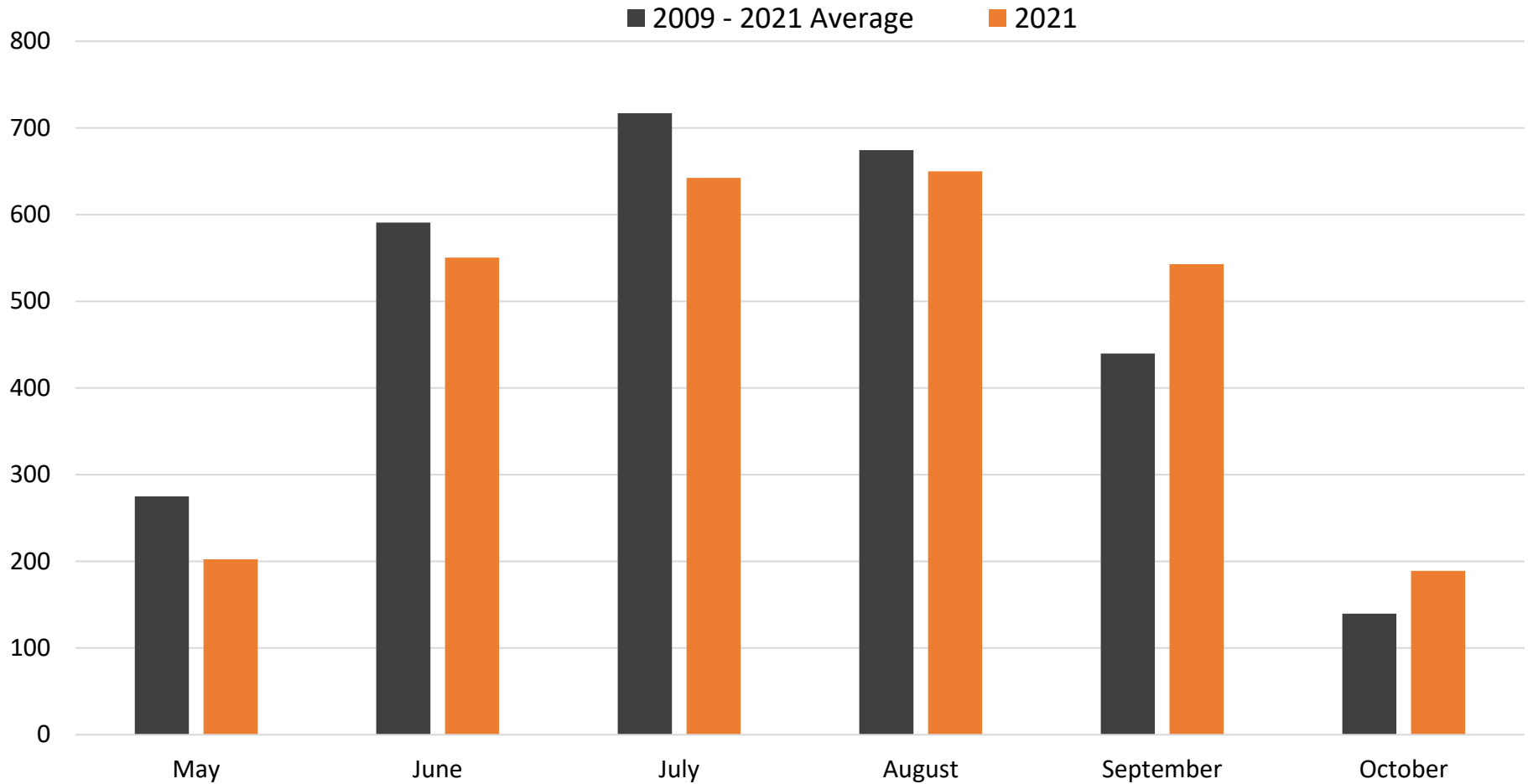


Figure 2. Monthly heat unit accumulation (DD60s) from the Weatherford, OK Mesonet station.

Table 3. 2020 Variety Lint Yield Deviation¹ (minimum 4 locations).

Variety	Greer Dry	Harmon Irr.	Jackson Dry	Jackson Irr.	Tillman Dry	Tillman Irr.	Washita Dry	Average
ST 4993 B3XF	+9.93%	+4.73%	+10.76%	+4.10%	+6.76%	-0.13%	+9.39%	+6.51%
DP 1948 B3XF	+3.58%	-6.68%	+3.57%	-2.80%	-0.43%	+10.02%	+5.70%	+1.85%
ST 5600 B2XF	-6.12%		-6.61%		+14.15%		+4.52%	+1.49%
NG 4098 B3XF	+16.24%	-7.56%	+5.47%	-7.89%	-5.35%	+1.54%	+2.52%	+0.71%
NG 5150 B3XF	+0.96%	+2.00%	-4.33%	-1.96%	-3.60%	-3.41%	+0.11%	-1.46%
NG 4190 B3XF	-4.51%	-12.19%	+0.02%	-4.40%	+0.36%	+8.72%	-1.30%	-1.90%
NG 4050 XF	-7.12%		+1.38%		-1.37%		-4.13%	-2.81%
DP 2022 XF	-4.36%		-10.43%		-12.40%		-1.12%	-7.08%
Avg. (lbs. acre ⁻¹) ²	760	1,295	574	1,498	886	1,002	1,011	

¹Percent yield increase or decrease compared to the trial average.

²Average lint yield of each location in lbs. per acre.

Table 4. Performance of varieties pooled across dryland and irrigated locations in southwestern Oklahoma.

Pooled Variety Performance – Dryland ¹				Pooled Variety Performance – Irrigated ²		
Variety	Lint Yield (lbs. acre ⁻¹)		Loan Value (cents lb. ⁻¹)	Variety	Lint Yield (lbs. acre ⁻¹)	Loan Value (cents lb. ⁻¹)
ST 4993 B3XF	806	a	52.82 ab	ST 4990 B3XF	1,336	51.67
NG 4098 B3XF	776	a	54.19 a	ST 4993 B3XF	1,306	51.89
DP 2012 B3XF	764	a	53.37 ab	DP 2020 B3XF	1,262	50.68
DP 1948 B3XF	755	ab	53.50 ab	DP 1948 B3XF	1,256	49.22
ST 5600 B2XF	754	ab	53.31 ab	NG 5150 B3XF	1,253	51.56
NG 4190 B3XF	730	ab	53.02 ab	NG 4190 B3XF	1,220	50.15
NG 5150 B3XF	724	ab	52.93 ab	NG 4936 B3XF	1,215	51.25
NG 4050 B3XF	721	ab	51.73 bc	DP 2038 B3XF	1,211	49.48
DP 2022 XF	672	b	50.50 c	NG 4098 B3XF	1,198	49.59
NG 4936 B3XF	666	b	53.33 ab			

¹Includes data from trials in Greer, Jackson, and Tillman counties.

²Includes data from trials in Harmon, Jackson, and Tillman counties.



Table 5. 2021 Greer Co. Dryland RACE Trial Results

Planted: June 10th

Seeding Rate: 25,000 40" row spacing

Harvested: October 27th and 29th, stripper harvested

Variety	Lint Yield lbs. acre ⁻¹	Turnout %	Micronaire	Fiber Length inches	Uniformity %	Fiber Strength g tex ⁻¹	Loan Value ¹ cents lb. ⁻¹	Return ² \$ acre ⁻¹
NG 4098 B3XF	883 a	35.83 ab	3.89 bc	1.17 a	81.9 ab	33.5 a	54.38 a	438 a
ST 4993 B3XF	835 ab	37.47 a	4.33 a	1.07 d	83.2 a	33.9 a	52.78 a	398 ab
DP 1948 B3XF	787 bc	35.50 ab	3.82 c	1.13 a-c	81.3 bc	32.4 ab	52.00 a	367 b-d
DP 2012 B3XF	783 bc	35.65 ab	3.78 cd	1.11 b-d	81.2 bc	30.2 cd	53.25 a	377 a-c
NG 5150 B3XF	767 bc	36.02 ab	4.01 a-c	1.11 b-d	81.4 bc	28.8 de	53.13 a	365 b-d
DP 2022 XF	727 cd	31.72 c	3.38 d	1.07 d	80.0 c	27.5 e	47.95 b	312 d
NG 4190 B3XF	725 cd	35.33 ab	3.79 cd	1.11 b-d	81.2 bc	28.6 de	53.17 a	346 b-d
ST 5600 B2XF	713 cd	33.86 bc	4.30 ab	1.10 b-d	81.4 bc	30.9 bc	53.22 a	337 cd
NG 4050 XF	706 cd	36.68 a	3.88 c	1.08 cd	81.2 bc	31.2 bc	52.10 a	330 cd
NG 4936 B3XF	671 d	33.82 bc	3.84 c	1.13 ab	82.2 ab	29.6 cd	53.93 a	320 cd
Average	760	35.19	3.90	1.11	81.5	30.7	52.59	359
p-value	0.0040	0.0037	0.0093	0.0121	0.0766	<0.0001	0.0222	0.0199
pLSD	86	2.34	0.42	0.05	1.6	1.7	3.05	60
CV	9.71	5.70	8.68	3.40	1.36	7.26	4.40	12.95

¹Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

²Return per acre calculated as (lint yield per acre X loan value per pound) - seed cost per acre.



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Table 6. 2021 Harmon Co. Irrigated RACE Trial Results

Planted: May 3rd

Seeding Rate: 40,000, 40" row spacing

Irrigation: Sub-surface drip

Harvested: October 8th, picker harvested

Variety	Lint Yield (lbs. per acre)		Turnout (%)		Micronaire		Length (inches)		Uniformity (%)	Strength (g/tex)		Loan Value ¹ (cents/pound)	Return ² (\$/acre)
ST 4990 B3XF	1,543	a	38.87	bc	3.11	ab	1.23	ab	82.3	29.6	a-c	47.13	659 a
ST 4993 B3XF	1,356	b	42.23	a	3.16	a	1.20	bc	83.3	31.6	a	47.60	577 b
NG 4936 B3XF	1,323	bc	38.15	c	2.91	a-c	1.24	ab	82.0	28.4	bc	45.58	535 b-d
DP 2020 B3XF	1,323	bc	38.04	c	2.87	bc	1.20	bc	80.2	28.7	a-c	43.70	510 b-e
NG 5150 B3XF	1,321	bc	40.20	b	3.14	a	1.20	bc	81.2	28.8	a-c	46.50	543 bc
DP 2038 B3XF	1,246	cd	42.87	a	2.77	c	1.17	c	80.4	26.8	c	42.75	465 c-e
DP 1948 B3XF	1,209	de	39.15	bc	2.81	c	1.23	ab	80.3	30.1	ab	44.60	471 c-e
NG 4098 B3XF	1,197	de	38.13	c	2.85	bc	1.25	a	80.4	31.6	a	44.15	459 de
NG 4190 B3XF	1,137	e	39.92	b	2.86	bc	1.21	a-c	82.2	28.2	bc	44.77	439 e
Average	1,295		39.73		2.94		1.21		81.4	29.3		45.2	518
p-value	<0.0001		<0.0001		0.0341		0.0254		0.1432	0.0482		0.2505	0.0004
<i>pLSD</i>	108		1.63		0.27		1.21		NS	2.91		NS	78
CV	11.67		4.73		6.60		2.69		2.06	7.02		5.53	16.67

¹Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

²Return per acre calculated as (lint yield per acre X loan value per pound) - seed cost per acre.



Table 7. 2021 Jackson Co. Dryland Two Replication Strip Trial Results

Planted: June 9th

Seeding Rate: 20,000, 40" row spacing

Harvested: November 11th, stripper harvested

Variety	Lint Yield lbs./acre	Turnout %	Micronaire	Fiber Length inches	Uniformity %	Fiber Strength grams/tex	Loan Value ¹ cents/lb.	Return per Acre ² \$
PHY 480 W3FE	642	37.99	4.14	1.07	81.9	28.8	52.10	307
ST 4993 B3XF	636	38.71	4.48	1.07	81.0	30.7	52.20	298
FM 2398 GLTP	619	39.57	4.49	1.08	80.0	29.4	52.70	294
NG 4098 B3XF	606	36.98	4.18	1.12	80.9	32.6	54.05	293
PHY 443 W3FE	600	38.20	4.82	1.04	80.6	27.7	48.90	258
DP 1948 B3XF	595	37.49	4.32	1.15	82.5	31.9	54.20	288
PHY 400 W3FE	592	36.57	4.11	1.07	80.3	30.5	52.30	274
NG 4050 XF	582	36.70	4.55	1.04	81.0	28.2	48.90	260
NG 4190 B3XF	574	37.03	4.16	1.05	80.1	28.0	52.10	264
PHY 332 W3FE	554	34.20	4.42	1.07	80.0	30.3	52.20	253
NG 5150 B3XF	549	36.16	4.52	1.10	81.3	28.2	52.65	254
PHY 350 W3FE	542	33.72	4.36	1.06	80.3	27.9	52.00	247
ST 5600 B2XF	536	36.70	4.56	1.08	80.5	30.2	52.85	254
DP 2012 B3XF	534	36.52	4.24	1.10	81.7	26.5	52.75	246
DP 2022 XF	514	32.66	4.05	1.06	78.7	27.3	51.45	232
NG 4936 B3XF	513	35.61	4.44	1.07	81.5	27.3	52.00	232
Average	574	36.55	4.37	1.08	80.8	29.1	52.08	266

¹Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

²Return per acre calculated as (lint yield per acre X loan value per pound) - seed cost per acre.



Table 8. 2021 Jackson Co. Irrigated RACE Trial Results

Planted: May 21st

Seeding Rate: 42,000 38" row spacing

Irrigation: sub-surface drip located on 72" spacing in furrow

Harvested: October 18th, picker harvested

Variety	Lint Yield (lbs. per acre)	Turnout (%)	Micronaire	Length (inches)	Uniformity (%)	Strength (g/tex)	Loan Value ¹ (cents/pound)	Return ² (\$/acre)
PHY 332 W3FE	1,618 a	40.75 e-g	3.81 c-f	1.21 b-d	82.8 ab	33.9 ab	54.40 a	806 a
PHY 350 W3FE	1,594 a	40.44 fg	3.89 c-e	1.20 cd	82.9 ab	31.6 cd	54.37 a	793 ab
PHY 443 W3FE	1,580 a	41.09 d-g	3.82 c-f	1.18 de	84.0 a	33.6 ab	54.47 a	786 ab
FM 2398 GLTP	1,576 a	43.00 a-c	4.58 a	1.21 cd	83.5 a	30.7 d-f	54.12 a	784 ab
PHY 400 W3FE	1,561 ab	42.37 b-e	3.82 c-f	1.16 e	82.3 a-c	31.6 cd	52.52 ab	747 a-c
ST 4993 B3XF	1,559 a-c	44.60 a	4.54 a	1.15 e	84.1 a	33.7 ab	54.27 a	775 ab
ST 4990 B3XF	1,513 a-d	40.47 fg	4.34 ab	1.23 bc	83.6 a	29.9 f	54.10 a	747 a-c
NG 5150 B3XF	1,469 b-e	42.10 c-f	4.19 a-c	1.20 cd	82.6 ab	31.4 c-f	54.37 a	724 bc
DP 1948 B3XF	1,456 b-e	41.04 d-g	3.30 g	1.27 a	82.3 a-c	32.3 bc	48.77 c	639 de
DP 2020 B3XF	1,455 c-e	41.36 c-g	4.00 b-d	1.22 b-d	83.9 a	31.5 c-e	54.37 a	716 b-d
PHY 480 W3FE	1,450 de	40.80 e-g	3.40 g	1.20 cd	84.1 a	31.4 c-f	50.42 bc	675 c-e
NG 4190 B3XF	1,432 de	42.59 b-d	3.50 e-g	1.21 cd	83.0 ab	30.0 ef	51.87 ab	668 c-e
DP 2038 B3XF	1,423 de	43.86 ab	3.62 d-g	1.09 f	80.6 c	31.1 c-f	52.93 ab	684 c-e
NG 4936 B3XF	1,403 e	39.81 g	3.92 cd	1.21 cd	83.0 ab	30.0 ef	54.07 a	686 c-e
NG 4098 B3XF	1,380 e	40.23 g	3.42 fg	1.25 ab	81.6 bc	34.5 a	50.45 bc	625 e
Average	1,498	41.63	3.88	1.20	82.95	31.80	53.03	724
p-value	0.0003	<0.0001	<0.0001	<0.0001	0.0275	<0.0001	0.0057	0.0004
pLSD	105	1.71	0.41	0.04	1.88	31.8	3.05	81
CV	6.13	3.87	11.54	3.94	1.62	5.19	4.42	9.64

¹Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

²Return per acre calculated as (lint yield per acre X loan value per pound) – seed cost per acre.



Table 9. 2021 Jackson Co. Irrigated RACE Trial Results – Only XtendFlex® Varieties

Planted: May 21st

Seeding Rate: 42,000 38” row spacing

Irrigation: sub-surface drip located on 72” spacing in furrow

Harvested: October 18th, picker harvested

Variety	Lint Yield (lbs. per acre)	Turnout (%)	Micronaire	Length (inches)	Uniformity (%)	Strength (g/tex)	Loan Value ¹ (cents/pound)	Return ² (\$/acre)
ST 4993 B3XF	1,559 a	44.60 a	4.54 a	1.15 d	84.1 a	33.7 ab	54.27 a	775 a
ST 4990 B3XF	1,513 ab	40.47 ef	4.34 ab	1.23 bc	83.6 a	29.9 e	54.10 a	747 ab
NG 5150 B3XF	1,469 bc	42.10 cd	4.19 ab	1.20 c	82.6 ab	31.4 cd	54.37 a	724 a-c
DP 1948 B3XF	1,456 bc	41.04 d-f	3.30 e	1.27 a	82.3 a-c	32.3 bc	48.77 c	639 d
DP 2020 B3XF	1,455 bc	41.36 c-e	4.00 bc	1.22 bc	83.9 a	31.5 c	54.37 a	716 a-c
NG 4190 B3XF	1,432 cd	42.59 bc	3.50 de	1.21 c	83.0 ab	30.0 e	51.87 a-c	668 cd
DP 2038 B3XF	1,423 cd	43.86 ab	3.62 c-e	1.09 e	80.6 c	31.1 c-e	52.93 ab	684 b-d
NG 4936 B3XF	1,403 cd	39.81 f	3.92 b-d	1.21 c	83.0 ab	30.0 de	54.07 a	686 b-d
NG 4098 B3XF	1,380 d	40.23 ef	3.42 e	1.25 ab	81.6 bc	34.5 a	50.45 bc	625 d
Average	1,455	41.79	3.87	1.20	82.8	31.6	52.80	696
p-value	0.0028	<0.0001	0.0001	<0.0001	0.0255	<0.0001	0.0134	0.0023
<i>p</i> LSD	73	1.33	0.43	0.04	1.9	1.4	3.19	64
CV	4.38	4.15	12.22	4.63	1.76	5.54	4.70	8.12

¹Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

²Return per acre calculated as (lint yield per acre X loan value per pound) - seed cost per acre.



Table 10. 2021 Tillman Co. Dryland RACE Trial Results

Planted: June 18th

Seeding Rate: 25,000 40" row spacing

Harvested: November 27th, picker harvested

Variety	Lint Yield (lbs. per acre)	Turnout (%)	Micronaire	Length (inches)	Uniformity (%)	Strength (g/tex)	Loan Value ¹ (cents/pound)	Return ² (\$/acre)
ST 5600 B2XF	1,012 a	43.09 b	4.51 a	1.12 de	82.0	30.6 cd	53.87	508 a
DP 2012 B3XF	974 ab	42.31 b	4.05 b	1.15 bc	83.2	30.3 d	54.12	483 ab
ST 4993 B3XF	946 a-c	45.03 a	4.46 a	1.10 e	82.5	33.8 a	53.48	463 a-c
NG 4190 B3XF	889 b-d	42.82 b	3.72 de	1.13 c-e	81.7	29.8 d	53.80	434 b-d
DP 1948 B3XF	882 b-d	42.65 b	3.89 b-d	1.18 ab	81.8	32.0 bc	54.30	437 b-d
NG 4050 XF	874 b-e	42.47 b	4.03 bc	1.14 cd	82.7	30.8 cd	54.18	443 b-d
NG 5150 B3XF	854 c-e	42.87 b	3.94 b-d	1.11 de	80.6	28.0 e	53.02	409 c-e
NG 4098 B3XF	839 de	41.78 b	3.79 c-e	1.18 a	80.6	32.9 ab	54.15	411 c-e
NG 4936 B3XF	815 de	40.16 c	4.02 bc	1.15 a-c	82.4	30.3 d	54.05	397 de
DP 2022 XF	776 e	37.74 d	3.65 e	1.14 cd	81.4	29.4 de	52.10	365 e
Average	886	42.09	4.01	1.14	81.9	30.8	53.71	435
p-value	0.0042	<0.0001	<0.0001	0.0005	0.2174	<0.0001	0.2446	0.0053
<i>pLSD</i>	104	1.50	0.24	0.03	NS	1.67	NS	62
CV	10.33	4.88	7.52	2.63	1.60	6.02	1.96	12.24

¹Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

²Return per acre calculated as (lint yield per acre X loan value per pound) - seed cost per acre.



Table 11. 2021 Tillman Co. Irrigated RACE Trial Results

Planted: May 26th

Seeding Rate: 40,000 40" row spacing

Irrigation: center pivot

Harvested: October 31st; picker harvested

Variety	Lint Yield (lbs. per acre)		Turnout (%)		Micronaire		Length (inches)		Uniformity (%)	Strength (g/tex)		Loan Value ¹ (cents/pound)	Return ² (\$/acre)		
DP 1948 B3XF	1,103	a	43.68	c	3.93	b	1.20	a	82.4	31.2	b	54.30	a	531	a
NG 4190 B3XF	1,090	a	44.22	c	4.05	b	1.16	b-d	81.9	28.8	c	53.82	a	516	ab
NG 4098 B3XF	1,018	b	41.24	e	3.93	b	1.19	ab	81.8	34.1	a	54.18	a	483	bc
DP 2020 B3XF	1,008	b	41.84	de	4.19	ab	1.17	a-c	82.1	29.6	bc	53.98	a	472	cd
ST 4993 B3XF	1,001	b	45.51	b	4.61	a	1.10	e	83.1	34.4	a	53.80	a	471	cd
NG 5150 B3XF	968	bc	44.24	c	4.66	a	1.12	de	81.9	30.0	bc	53.80	a	450	c-e
DP 2038 B3XF	964	bc	47.17	a	4.35	ab	1.09	e	80.6	29.4	bc	52.77	b	442	de
ST 4990 B3XF	951	bc	42.43	d	4.27	ab	1.15	cd	81.7	29.1	c	53.78	a	443	de
NG 4936 B3XF	919	c	41.35	e	4.08	b	1.18	a-c	82.4	30.4	bc	54.10	a	428	e
Average	1,002		43.52		4.23		1.15		82.0	30.8		53.84		471	
p-value	0.0004		<0.0001		0.0488		<0.0001		0.6114			0.0387		0.0002	
<i>pLSD</i>	67		1.01		0.50		0.04		NS			0.80		37	
CV	9.09		4.57		8.35		3.61		1.61			1.09		10.61	

¹Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

²Return per acre calculated as (lint yield per acre X loan value per pound) - seed cost per acre.



Table 12. 2021 Washita Co. Dryland RACE Trial Results

Planted: June 5th

Seeding Rate: 28,000 40" row spacing

Harvested: November 29th, stripper harvested

Variety	Lint Yield (lbs. per acre)	Turnout ¹ (%)	Micronaire	Length (inches)	Uniformity (%)	Strength (g/tex)	Loan Value ¹ (cents/pound)	Return ² (\$/acre)
ST 4993 B3XF	1,106 a	43.55 a	4.73 ab	1.10 d	83.1 a	32.3 b	53.43 bc	543 a
DP 1948 B3XF	1,069 ab	41.57 cd	4.47 bc	1.19 ab	82.9 ab	32.2 b	54.23 a	532 ab
ST 5600 B2XF	1,057 a-c	42.82 ab	4.89 a	1.14 cd	83.4 a	32.3 b	54.13 a	531 ab
DP 2123 B3XF	1,041 a-c	37.94 f	4.50 bc	1.11 d	81.6 b-d	30.0 c-e	53.40 bc	518 ab
NG 4098 B3XF	1,036 a-c	39.77 e	4.12 d	1.20 a	82.8 ab	35.4 a	54.47 a	516 ab
NG 5150 B3XF	1,012 b-d	41.92 b-d	4.74 ab	1.11 d	81.2 cd	28.5 c-e	53.27 c	490 bc
DP 2022 XF	1,000 b-d	37.79 f	4.27 cd	1.10 d	80.2 d	28.2 e	52.90 c	482 bc
NG 4190 B3XF	998 b-e	42.35 a-c	4.46 bc	1.13 cd	82.6 a-c	28.4 de	53.42 bc	484 bc
NG 4050 XF	969 c-e	41.46 cd	4.38 cd	1.13 cd	82.2 a-c	30.7 bc	53.97 ab	489 bc
DP 2055 B3XF	925 de	41.07 d	4.50 bc	1.17 a-c	82.8 ab	30.4 b-d	54.02 ab	452 c
NG 4936 B3XF	907 e	39.30 e	4.36 cd	1.14 b-d	82.1 a-c	29.0 c-e	53.92 ab	441 c
Average	1,011	40.87	4.49	1.14	82.3	30.7	53.74	498
p-value	<0.0061	<0.0001	0.001	0.0016	0.0061	<0.0001	0.0009	0.0076
<i>pLSD</i>	92	1.21	0.29	0.05	1.5	2.2	0.63	51
CV	10.18	4.77	5.76	3.76	1.49	7.91	1.06	11.45

¹Commercial gin turnout values from this field in mid-high 30s. The source of high turnout values from research gin is unknown.

²Color and leaf grades set to base levels (41 and 4, respectively) due to lack of proper lint cleaner on gin.

³Return per acre calculated as (lint yield per acre X loan value per pound) - seed cost per acre.